

REMARKS

Status of the claims

Claims 1-6 are currently pending and claims 7-15 are withdrawn. Claim 2 is cancelled herein without prejudice or disclaimer. Claims 1 and 3-5 are amended herein. Support for the amendments can be found throughout the Specification (*e.g.*, p. 14-20, Examples 1-14).

Response to Objections to the Specification and Claims

The Specification has been amended herein to capitalize trademarks, as requested by the Examiner. Applicants note that these terms are well-known to those of skill in the art. No new matter has been added.

In light of the present amendments, claim 2 has been cancelled without prejudice or disclaimer. The request by the Examiner to amend claim 2 is thus rendered moot.

Response to Rejections Under §112

The Action rejects the claims as being indefinite due to not providing a specific LDH sequence. In response, Applicants generally traverse; however, In light of the present amendment, the rejection is moot. The instantly claimed LDH-C4 would be known to one of skill in the art and is described in the Specification. For example, the cDNA of mouse LDH-C4 (“pDNA3.1-LDH-C” as described on p. 37) was used in the Examples. The Specification further states on p. 16, “The availability of complete amino acid sequence information and high-resolution crystal structure for the lactate dehydrogenase-C4 antigen (Hogrefe *et al.*, 1987)...”.

Applicants note that GenBank Accession NP_038608 referred to in the Action corresponds to LDH-C3; thus this LDH-C3 would not fall within the scope of the instant claims, which require LDH-C4. GenBank Accession 2LDX corresponds to a mouse LDH-C4, and would fall within the scope of the presently claimed LDH-C4.

Regarding items “6” and “7” presented in the above-mentioned Office Action, Applicants generally traverse. However, in light of the above amendment and explanation, these rejections are rendered moot.

Response to Rejections Under §102

The Action rejects claims 1 and 6 under §102 as anticipated anticipated by Bleil *et al.* In response, Applicants generally traverse; however, in light of the present amendments (*e.g.*, the requirement of a LDH-C4 sequence), the rejection is moot.

The Action rejects claims 1-2 and 6 as anticipated by Kirk *et al.* (item 10). In response, Applicants traverse. Specifically, Applicants note that the present application claims the benefit of U.S. provisional application 30/412,043, filed on September 19, 2002, as stated on p. 1 of the Specification. Kirk *et al.* (published October 24, 2002) is thus not available as prior art against the present application under §102(a). See MPEP §706.02.

Response to Rejections Under §103

The Action rejects claims 1-6 under §103 as unpatentable over Bleil *et al.* in view of Goldberg *et al.* In response, Applicants traverse. The Action has not presented a *prima facie*

obviousness rejection for the following reasons. Specifically, the Action has not provided motivation for one of ordinary skill in the art to combine Bleil with Goldberg.

As noted by the Court of Appeals for the Federal Circuit, “[a] person of ordinary skill in the art is also presumed to be one who thinks along the lines of conventional wisdom in the art and is not one who undertakes to innovate, whether by patient, and often expensive, systematic research or by extraordinary insight; it makes no difference which.” *The Standard Oil Company v. American Cyanamid Co.*, 227 U.S.P.Q. 293 (Fed. Cir. 1985) (emphasis supplied).

Applicants agree with the Examiner that Bleil does not teach LDH-C. The Action has not provided motivation to combine Bleil with a LDH protein. Further, the Action has not presented motivation to combine Bleil with any protein fragment, let alone a LDH-C4 protein fragment. Goldberg does not provide any motivation to express a LDH-C4 protein fragment in a plant.

Applicants also note that the presently amended claims require a LDH-C4 protein, and the rejection presents arguments regarding LDH-C. Thus the rejection in the Action does not possess all of the claim limitations in the presently amended claims.

Double Patenting

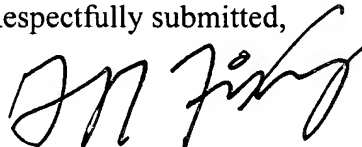
Applicants appreciate the Examiner making the parent case of record. As indicated on PAIR, Application 10/664,118 is abandoned. Thus, the rejection is moot.

Conclusion

This is submitted to be a complete response to the referenced Office Action. In conclusion, Applicant submits that, in light of the foregoing remarks, the present case is in condition for allowance and such favorable action is respectfully requested.

The Examiner is invited to contact the undersigned at (512) 536-5674 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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